

## Science meeting report

Reading and thinking with visual tools and methods in digital humanities

Umeå 07/12/2011 - 08/12-2011

Co-sponsored by ESF-networking programme

### Summary

Digital tools for the representation of humanistic materials are rapidly expanding the possibilities for how we read and think when exploring different research questions. In the workshop we gathered expertise from different research areas, each one of which uses various form of visualization to support existing research and to anticipate new research. Different perspectives were voiced. Some reflected upon usage, while others tried to understand the potential of different practices. As a result the workshop managed to articulate a better understanding of both the risks and benefits involved, as well as giving an insight into modes of practice.

The workshop was organized by giving participants responsibilities to sharing their views on how to address/reflect upon the objectives of the workshop. The participants expressed a keen interest in the theme of the workshop, but more importantly there was a strong collaborative atmosphere of shared research and experience where everyone felt their perspective mattered.

In the closing session, all participants tried to give their summary of the workshop by putting the three most important issues/question on a white-board. That white-board was later transcribed and participants were allowed to mark their interest to work with these critical areas further at the Nedimah-wiki

(<http://nedimah.pbworks.com/w/page/48913250/Summary%20of%20topics%20from%20workshop%207%20dec>)

The workshop gathered 10 participants predominantly part of the NEDIMAH working group. In the workshop we shared different views of how to use and how to reflect upon visualization in the humanities. The participants shared presentations and participants had prepared questions to put to other participants. This framework facilitated an active and participatory engagement from the beginning, as each person had read and thought about the others' work prior to the meeting. This critical engagement was invaluable as it allowed participants to move beyond a surface description of their research and method, into comparative analyses from which shared points of concern and interest emerged.

## Workshop results

Apart from general discussions how to read and think in relation to information visualization we also shared several examples and related them to the key topic.

### Extending the experiment: uses of motion data in archaeological reconstruction, and what it can (and can't) do for us.

This theme explored the observation and visualization of human movement in (re)constructed archaeological environments, using bespoke gyroscope-based motion capture technology.

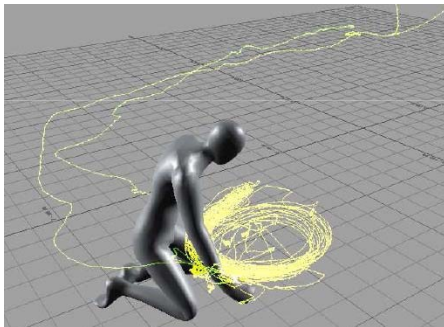


Image from presentation by Stuart Dunn, example of capturing visual narratives of material culture

### Textometrica - streamlining digital text analysis

This presentation describes how qualitative and quantitative research is becoming more intertwined in the context of internet and culture studies. The textometrica service can be iterative - be used before, after or during closing readings of rich text from an internet context. Users prepare the text by defining what makes up a text block. A text block can be a news article, a twitter feed, a database post, blog-entry, all depending on the field of research.

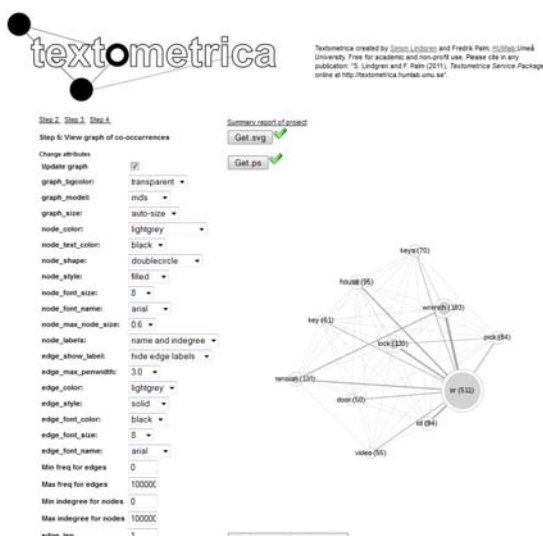


Image from presentation by Stefan Gelfgren and Fredrik Palm, showing final steps of text and concept analysis.

## Cultural Heritage Remediation

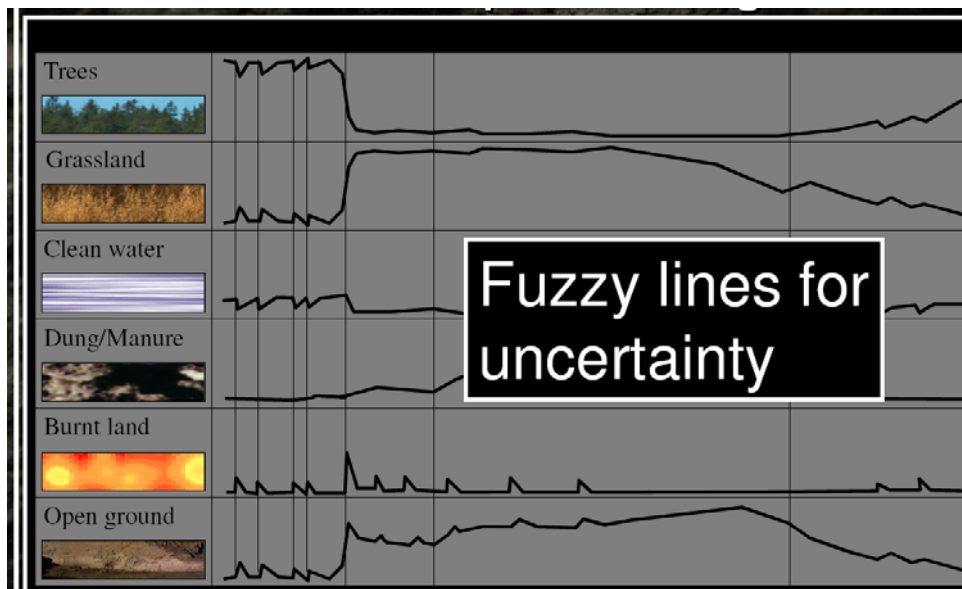
This theme explored how digital scholarship creates virtual research environments where scholars gather to discuss ideas where we are beginning to use methodologies that invite further participation both from the knowledge community, and the general public. This invitation to dialogue, generates discussion beyond each given event. These further interventions challenge, augment and enrich the research environment, generating an engaged participatory culture.



*Image from presentation of Orla Murphy showing a form of representation of remediated object as part of possible dialogue process*

## Environmental archaeology and landscape reconstructions

The SEAD project aims to provide empirical data and tools which allows researchers to create empirically coupled models of past environments and their changes.



*Image from presentation by Phil Buckland addressing the questions of proxy representation as well handling uncertainty*

## Reading and Thinking with Visual Tools: the cases of Hestia and Gap

This presentation address various examples form of representation spatial text information in ancient literature - handling words, chronologies and spatial connections.

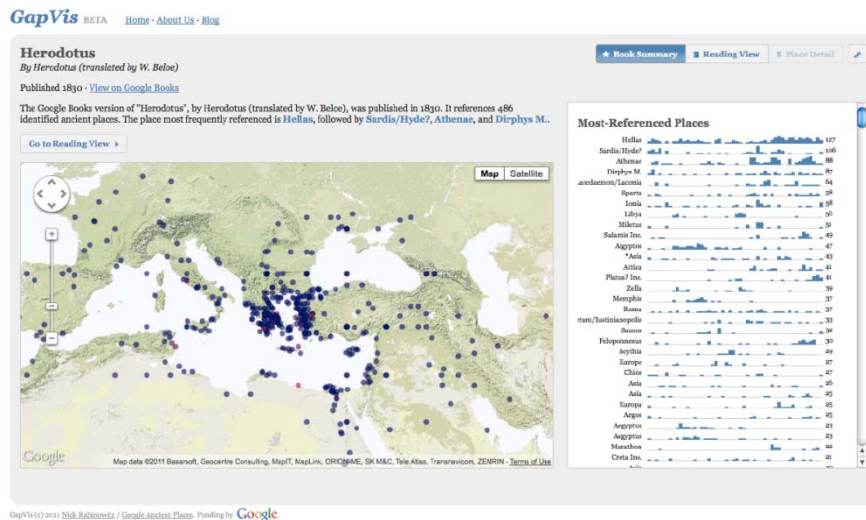


Image from presentation by Elton Baker, giving a overview of time-map narratives in GAP.

## Description, Dimension, Data

In this presentation various examples of how we handle descriptions, what are describing. Furthermore the reduction and expansion of dimensions was exemplified and discussed. The data representation was also addressed with different examples and usages (descriptive, analytical, constructivist/interpretive)

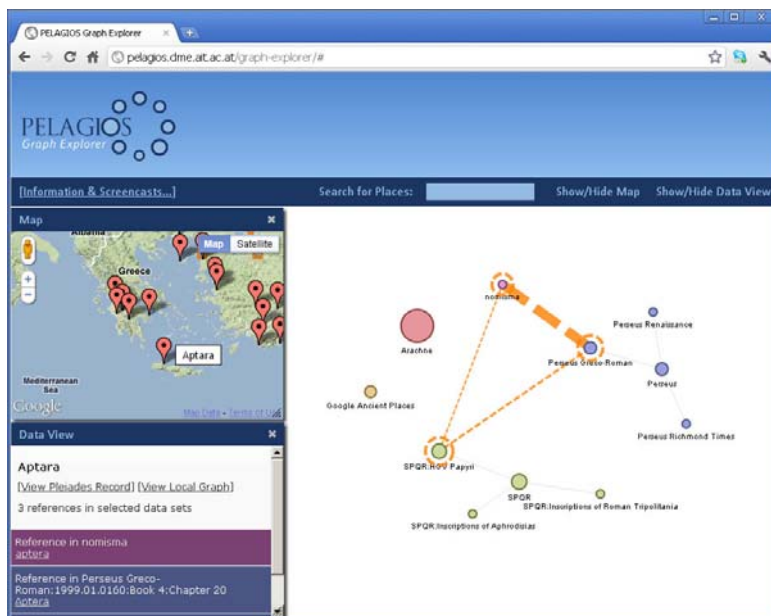


Image from presentation by Leif Isaksen, showing an example of analytical representation of documents describing ancient places.

## Here and there, looking for gravity center and real perspectives

This presentation reflected upon how aesthetic perspectives are needed to understand how visualization affects our way of thinking or sometimes how we think with visualization.

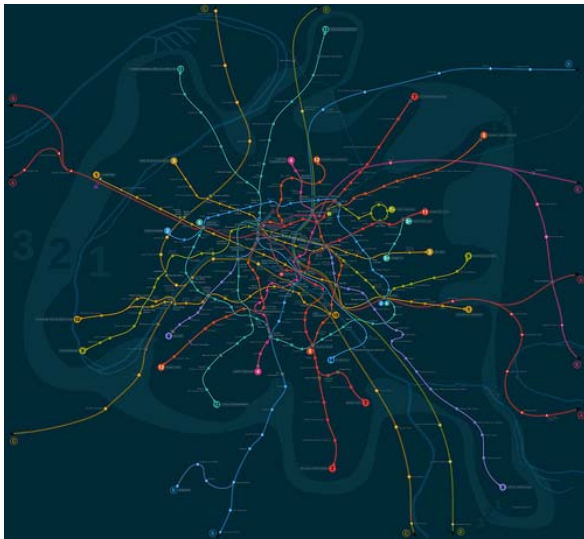


Image from presentation of by Nicolas Thély showing the symptom of an individual, looking for his gravity center and real perspectives

## Facetted browsing, and visualization

This presentation outlined how HUMlab's facetted browsing system can be used in many domains and enables new forms of reading databases.

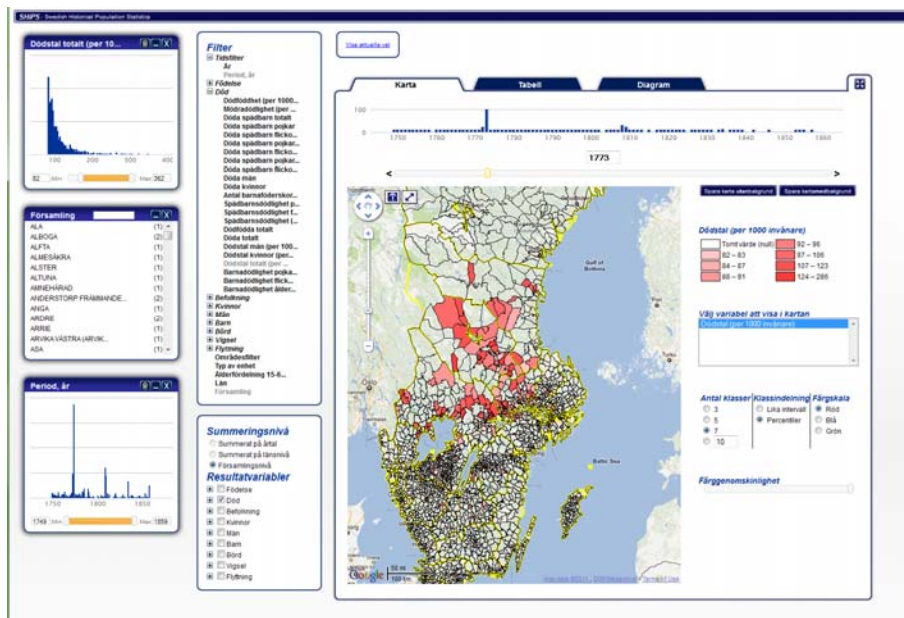


Image from presentation by Fredrik Palm, showing an example of facetted browsing of historical statistics enabling finding year of high death rates and projecting data into time and space.

## Impact of workshop and future directions in the field

It is hard to summarize the concrete result of all contributions, but as a part of the meeting we tried to outline topics for further exploration. We also agreed to continue discussion and coordination effort if possible to achieve shared interests.

The list of topics that acted as a summary are listed below:

### *Functionality, modelling, quality and uncertainty*

- **Functionality vs usability**
- **Target group**
- **Increase data quality with visualization**
- **Standardization vs the individual and the specificity of the data being used.**
- **Provenance and transparency**
- **Levels of uncertainty**
- **empirical**
- **interpretive**
- **conjectural**
- **Visualising uncertainty**

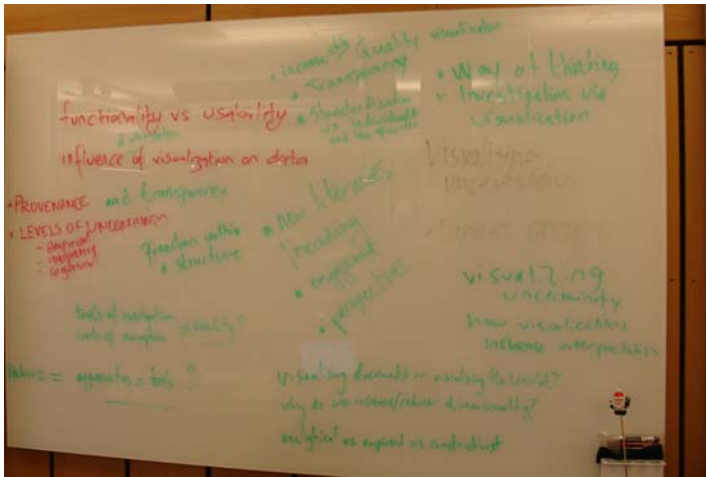
### *Dimensions and generalizations*

- **Visualizing documents or visualizing the world?**
- **Reality or descriptions of reality**
- **Why do we increase/reduce dimensionality?**

### *Reading, thinking, creating, user engagement*

- **Influence of interpretation when visualizing data**
- **Freedom within a structure**
- **New literacies, reading**
- **Engagement via visualization**
- **Perspectives**
- **Dataviz = Apparatus = tools?**
- **Visualization as a Way of thinking or think with visualization**
- **Tools of investigation vs. tools of descriptions**
- **Investigation via visualization, exploring via visualization**
- **Analytical vs. empirical vs. constructivist**





There was a strong commitment to work together. Suggestions for areas of study were made and work will continue both among meeting members and others. The foreseen impact is more robust concepts and practices to handling visualization as one of many different processes used in humanities research.

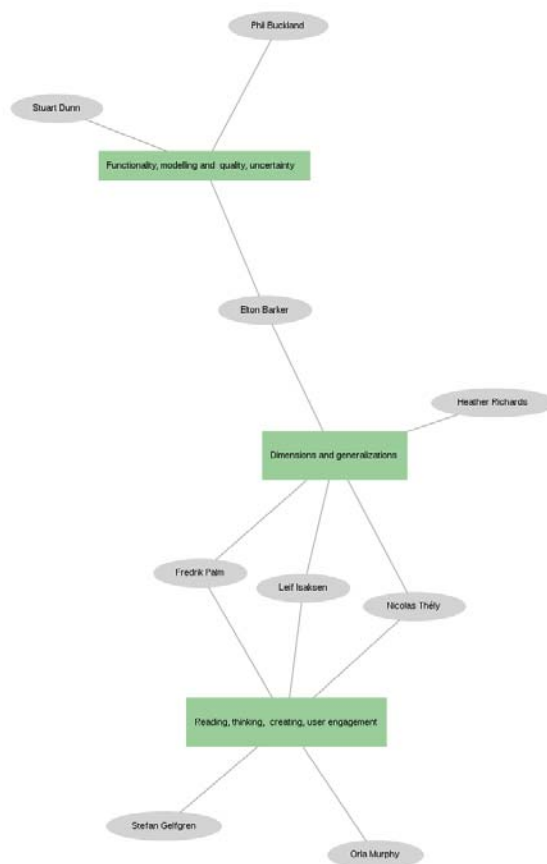
*Collaborative whiteboard where participants added their most relevant topic to act as a summary*

The future directions of this field will encompass a combination of higher level "mature" usage of information visualization at the same time as experimental work pushes the boundaries of digital methodology.

The work will structurally be integrated with ongoing research by the participants in order to reduce extra work and improve efficiency. Shared research questions or leading themes will be agreed in order to also see across the various type of research the group is doing.

We foresee that at the DH2012 in Hamburg, we will be able to present more examples where we have addressed shared questions-

Furthermore the workshop discussion will be shared among the networks of the participants, for example DARIAH, Humboldt foundation, Digital Humanities research at UCLA etc.



## Annex

### Participants:

<b>Title</b>	<b>Full name</b>	<b>Gender</b>	<b>Affiliation</b>	<b>email</b>
Research and development coordinator	Fredrik Palm	Male	HUMLab, Umeå University, 90187 Umeå, Sweden	fredrik.palm@humlab.umu.se
Lecturer	Elton Barker	Male	Department of Classical Studies, The Open University, UK	etebarker@gmail.com
Senior Lecturer	Philip Buckland	Male	Environmental Archaeology Lab Dept. Historical, Philosophical & Religious Studies Umeå University, 90187 Umeå, Sweden	phil.buckland@arke.umu.se
Professor	Johanna Drucker	Female	UCLA	drucker@gseis.ucla.edu
Lecturer	Stuart Dunn	Male	Kings college London	stuart.dunn@kcl.ac.uk
Lecturer	Stefan Gelfgren	Male	HUMLab, Umeå University, 90187 Umeå, Sweden	stefan.gelfgren@humlab.umu.se
Lecturer	Orla Murphy	Female	School of English, University College Cork, Ireland	o.murphy@ucc.ie
Professor	Nicolas Thély	Male	Dept of Art, Université Rennes 2, France	nicolas.thely@univ-rennes2.fr
Research Fellow	Leif Isaksen	Male	Humanities, University of Southampton, UK	l.isaksen@soton.ac.uk
Post-doc	Heather Richards	Female	HUMLab, Umeå University, 90187 Umeå, Sweden	heathmrr@hotmail.com



## **Agenda for the 7/12 2011**

8.30 Walk or bus from hotel (30 minutes walk)

9.30 Coffee and short guide in HUMlab

10.00-10.30 Introduction of ESF and objectives of NEDIMAH and this workshop

Introduction and expectations of participants (2 minutes each)

10.30-11.30 Reading and thinking with visual tools, critical perspectives and best practices.  
Conceptualizing forms of reading and thinking in digital humanities

Presentations and reflections

- Stuart Dunn
- Phil Buckland Environmental archeology and landscape reconstructions
- Orla Murphy

11.30-13.00 Lunch on campus (Corona)

13.00-14.30 Continued session

- THELY Nicolas - éléments of reflexion
- Leif Isaksen

14.30-15 Coffe break

15-17.30 Continued session

- Elton Barker
- Fredrik Palm Query based visualization using faceted browsing, examples of usage in several domain
- Stefan Gelfgren Textometrica and Twitter analysis

17.30-18.00 Closing session

19.00 Dinner at Uman Hotel (buffet dinner)